

1-20. (canceled)

21. A method for manufacturing opto-electronic nodules, said method comprising the steps of:

- A) providing a substrate wafer on which it multitude of detecting members are arranged;
- C) providing an optics wafer, said optics wafer comprising a multitude of transparent portions transparent for light generally detectable by said detecting members and at least one blocking portion for substantially attenuating or blocking incident light generally detectable by said detecting members;
- D) preparing a wafer stack comprising said substrate wafer and said optics wafer.

22. The method according to claim 21 comprising the step of:

- b) providing a spacer wafer;

wherein said spacer wafer is comprised in said optics wafer or is separate therefrom.

23. The method according to claim 22, wherein preparing said wafer stack in step D) is carried out such that said spacer wafer is arranged between said substrate wafer and said optics wafer and that said detecting members are arranged between said substrate wafer and said optics wafer.

24. The method according to claim 21, wherein step A) comprises the step of:

- a) placing said detecting members on said substrate wafer by pick-and-place.

25. The method according to claim 22, comprising the step of manufacturing said spacer wafer and said at least one blocking portion as a unitary part.

26. The method according to claim 21, wherein each of said multitude of transparent portions comprises at least one passive optical component comprising at least one optical structure each.

27. The method according to claim 26, further comprising the step of:

- c) manufacturing said passive optical components by means of replication.

28. The method according to claim 22, wherein said spacer wafer is made of a material which substantially attenuates or blocks light generally detectable by said detecting members.

29. The method according to claim 21, wherein a multitude of emission members for emitting light generally detectable by said detecting members is arranged on said substrate wafer such that a multitude of neighboring emission members and detecting members are present on said substrate wafer.

30. The method according to claim 29, wherein said multitude of passive optical components comprises one plurality of passive optical components associated with one of said emission members each and another plurality of passive optical components associated with one of said detecting members each.

31. The method according to claim 29, comprising the step of:

- providing a spacer wafer;

wherein said spacer wafer is comprised in said optics wafer or is separate therefrom, and wherein said spacer wafer is structured and arranged such that it reduces optical cross-talk between said emission members and said detecting members.

32. The method according to claim 22, comprising the step of:

- h) obtaining said spacer wafer by means of a replication process.

33. The method according claim 21, wherein said opto-electronic modules are proximity sensors.

34. The method according to claim 21, further comprising the step of:

- e) providing said substrate wafer with solder balls on that side of the substrate sensor which is opposed to that side of the substrate member on which said detecting members are arranged.

35. ) The method according to claim 21, further comprising the step of:

- f) separating said wafer stack into a multitude of separate modules each comprising a portion of said substrate wafer; at least one of said detecting members; at least one of said transparent portions; a portion of said blocking portion.

36. The method according to claim 22, further comprising the step of:

- f) separating said wafer stack into a multitude of separate modules each comprising a portion of said substrate wafer; at least one of said detecting members; a portion of said spacer wafer; at least one of said transparent portions; a portion of said blocking portion.

37. The method according to claim 21, further comprising the step of:

- g) providing a baffle wafer comprising a multitude of transparent regions; wherein said baffle wafer is comprised in said optics wafer or is separate therefrom.

38. The method according to claim 21, further comprising the step of:

- g') providing a baffle wafer arranged next to said optics wafer on that side of said optics wafer facing away from said substrate wafer;

and wherein preparing said wafer stack in step D) is carried out such that said detecting members are arranged between said substrate wafer and said optics wafer, and wherein said optics wafer is arranged between said baffle wafer and said substrate wafer.

39. The method according to claim 37, comprising the step of manufacturing said blocking portion and said baffle wafer as a unitary part.

40. The method according to claim 21, wherein said substrate wafer substantially is a printed circuit board assembly.

41. An onto-electronic module comprising

- a substrate;
- an optics member arranged generally parallel to said substrate;
- a detecting member arranged between said substrate and said optics member, mounted on said substrate, for detecting light having passed through said optics member;

Wherein said optics member comprises at least one transparent portion transparent for light generally detectable by said detecting member and at least one blocking portion for substantially attenuating or blocking incident light generally detectable by said detecting member.

42. The module according to claim 41 comprising a separation member arranged between said substrate and said optics member;

wherein said separation member is comprised in said optics member or is separate therefrom.

43. The module according to claim 41, wherein said transparent portion comprises at least one passive optical component.